

Exmar creates semi submersible deepwater production facility with a customized Marine Tank Management system from Emerson

RESULTS

- Improved operator efficiency.
- Maximize safety by a fully-integrated marine tank management system.
- Many emergency operation possibilities means increased redundancy.



APPLICATION

OPTI-EX™ Semi Submersible FPS

The OPTI-EX™ is the first semi submersible FPS conceived, designed, and built as a flexible and generic deepwater production facility. The innovative hull design is based on a proprietary ring-pontoon. The OPTI-EX™ FPS is capable of producing 60,000 barrels of oil and between 50 to 100 million cubic feet of gas per day.

Four identical systems with operation possibilities locally in each column and centrally from the Ballast Control Room at the topside.

CUSTOMER

Exmar Offshore Company, Houston, Texas

CHALLENGE

Due to the fact that OPTI EX™ is the first semi submersible FPS floating, the project needed proven, state-of-the-art solutions backed by superior technical expertise. The newly developed process also required more flexible solutions and fewer equipment items in order to maximize the units' operation. The systems designed have to remain on-site at sea for at least 20 years, so operability and reliability were very important as well as low life cycle cost.

SOLUTION

Emerson delivered a solution for severe control and monitoring of the Ballast and Bilge water tanks in close cooperation with Exmar. The innovative hull design is based on a proprietary ring-pontoon and four columns with no leakage possibilities beneath the water line.

Therefore the ideal solution provided by Emerson consists of four identical systems (one in each column) with operation possibilities both locally and from the Ballast Control Room on the topside. Each system contains valve remote control system with LPU's, tank level gauging and interface cabinets with UPS. The application of P-Net reduced the length of the cabling installed considerably. Further to enhance safety and reliability back up controllers (redundant) for all control and monitoring systems were installed.

Emerson Process Management

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